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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,079	05/15/2001	Nigel M-F Cheung	10008017-1	2713

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EXAMINER

MENBERU, BENIYAM

ART UNIT	PAPER NUMBER
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2626

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/858,079	<b>Applicant(s)</b> CHEUNG, NIGEL M-F	
	<b>Examiner</b> Beniyam Menberu	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

1. Applicant's arguments, see pages 10-15, filed February 24, 2005, with respect to the rejection(s) of claim(s) 1, 3, and 4 under U.S. Patent No. 5907742 to Johnson et al in view of U.S. Patent No. 5369423 to Hunter et al, claim(s) 7, 9, and 10 under U.S. Patent No. 5907742 to Johnson et al in view of U.S. Patent No. 5369423 to Hunter et al further in view of U.S. Patent No. 6518587 to Rombola, claim(s) 13, 14, and 17 under U.S. Patent No. 5907742 to Johnson et al in view of U.S. Patent Application Publication No. US 2001/0030774 A1 to Bromley further in view of U.S. Patent No. 5369423 to Hunter et al, and claim(s) 15 and 16 under U.S. Patent No. 5907742 to Johnson et al in view of U.S. Patent No. 5369423 to Hunter et al further in view of U.S. Patent Application Publication No. US 2001/0030774 A1 to Bromley further in view of U.S. Patent No. 6518587 to Rombola have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 5424537 to Lehman et al.

***Claim Objections***

2. Claim 18 is objected to because of the following informalities:

Claim 18 should depend from claim 17.

Appropriate correction is required.

### ***Drawings***

3. The drawings are objected to because the horizontal axis in Figures 2, 3, and 4 in the Replacement Sheet have not been labeled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 4, 5, 7, 9, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5424537 to Lehman et al.

Regarding claim 1, Lehman et al disclose a method of calibrating a scanner, comprising the steps of:  
performing a full calibration scan (column 2, lines 64-66; column 3, lines 1-5);  
performing at least one partial calibration scan (column 2, lines 66-68; column 3, lines 6-14);  
comparing the full calibration scan to the partial calibration scan (column 3, lines 15-18);  
re-performing the full calibration scan when the difference between the partial calibration scan and the full calibration scan is at least equal to a predetermined amount (column 3, lines 10-21).

Regarding claims 3 and 9, Lehman et al teach all the limitations of claims 1 and 7 respectively. Further Lehman et al disclose wherein the partial calibration scan does not turn off the scanner lamp (column 3, lines 48-60).

Regarding claims 4 and 10, Lehman et al teach all the limitations of claims 1 and 7 respectively. Further Lehman et al disclose the method wherein the partial calibration scan is done periodically (column 3, lines 10-14).

Regarding claims 5 and 11, Lehman et al teach all the limitations of claims 4 and 10 respectively. Further Lehman et al disclose wherein the period between partial calibration scans is based on time (column 7, lines 1-19).

Regarding claim 7, Lehman et al disclose a method of calibrating a scanner, comprising the steps of:  
performing a full calibration scan (column 2, lines 64-66; column 3, lines 1-5);  
performing at least one partial calibration scan (column 2, lines 66-68; column 3, lines 6-14);  
comparing the full calibration scan to the partial calibration scan (column 3, lines 15-18);  
adjusting the gains globally for the full calibration scan when the difference between the partial calibration scan and the full calibration scan is less than a predetermined amount (column 3, lines 18-24).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 8, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5424537 to Lehman et al further in view of U.S. Patent Application Publication No. US 2001/0030774 A1 to Bromley.

Regarding claims 2 and 8, Lehman et al teaches all the limitations of claims 1 and 7 respectively. However Lehman et al does not disclose wherein the partial calibration scan does not move the scan head.

Bromley discloses calibration scan that does not move the scan head (page 3, paragraph 58).

Lehman et al and Bromley are combinable because they are in the similar problem area of image scanner calibration.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of partial calibration without moving the scan head as taught by Bromley with the calibration method of Lehman et al implement a fast and efficient image scanner calibration.

The motivation to combine the reference is clear because having the image scanner head stationary during calibration as taught by Bromley can save some time during the calibration phase of image scanning.

Regarding claim 15, Lehman et al disclose a method of calibrating a scanner, comprising the steps of:  
performing a full calibration scan and storing the results as a reference scan (column 9, lines 9, lines 59-61; column 11, lines 19-24);  
performing at least one partial calibration scan (column 2, lines 66-68; column 3, lines 6-14) ;  
comparing the reference scan to the partial calibration scan (column 11, lines 20-25);  
adjusting the gains globally for the reference scan when the difference between the partial calibration scan and the reference calibration scan is less than a predetermined amount (column 3, lines 18-24). However Lehman et al does not disclose performing at least one partial calibration scan without moving the scan head.

Bromley discloses calibration scan without moving the scan head (page 3, paragraph 58).

Lehman et al and Bromley are combinable because they are in the similar problem area of image scanner calibration.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of partial calibration without moving the scan head as taught by Bromley with the calibration method of Lehman et al implement a fast and efficient image scanner calibration.

The motivation to combine the reference is clear because having the image scanner head stationary during calibration as taught by Bromley can save some time during the calibration phase of image scanning.

Regarding claim 16, Lehman et al in view of Bromley teach all the limitations of claim 15. Further Lehman et al disclose wherein the partial calibration scan is done periodically (column 3, lines 10-14).

8. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5424537 to Lehman et al in view of U.S. Patent No. 5153745 to Brandkamp et al.

Regarding claims 6 and 12, Lehman et al teach all the limitations of claims 4 and 10 respectively. However, Lehman et al does not disclose a method of claim 4 where the period between partial calibration scans is based on temperature.

Brandkamp et al disclose a method of claim 4 where the period between partial calibration scans is based on temperature (column 4, lines 36-42).



Lehman et al and Brandkamp et al are combinable because they are in the similar problem area of image scanner calibration.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the temperature based periodical calibration of Brandkamp et al with the calibration method taught by Lehman et al to implement an efficient calibration method for image scanners.

The motivation to combine the reference is clear because temperature of the scanning system is not stable (Brandkamp et al: column 4, lines 36-38) and thus it has to be compensated for.

9. Claims 13, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5424537 to Lehman et al in view of U.S. Patent No. 5907742 to Johnson et al further in view of U.S. Patent Application Publication No. US 2001/0030774 A1 to Bromley.

Regarding claim 13, Lehman et al disclose a method of calibrating a scanner, comprising the steps of:

- a) performing a full calibration scan and storing the results as a reference scan (column 9, lines 9, lines 59-61; column 11, lines 19-24);
- b) performing at least one partial calibration scan (column 2, lines 66-68; column 3, lines 6-14);
- c) comparing the reference scan to the partial calibration scan (column 11, lines 20-25);
- d) performing a calibration when the difference between the partial calibration scan and the reference scan is at least equal to a predetermined amount (column 3, lines 10-21).

Art Unit: 2626

However Lehman et al does not disclose performing at least one partial calibration scan without moving the scan head in step b) and performing a PRNU calibration scan and storing the results as a reference scan in step d).

Bromley discloses calibration scan without moving the scan head (page 3, paragraph 58).

Johnson et al disclose performing a PRNU calibration scan and storing the results as a reference scan (column 7, lines 44-53, line 65-67; column 8, lines 1-3).

Lehman et al, Johnson et al, and Bromley are combinable because they are in the similar problem area of image scanner calibration.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the PRNU calibration scan of Johnson et al and the calibration without scan head movement taught by Bromley with the scanning calibration method of Lehman et al to implement an efficient calibration method.

The motivation to combine the reference is clear because having the image scanner head stationary during calibration as taught by Bromley can save some time during the calibration phase of image scanning and Johnson teaches that PRNU scan is useful for calibrating the scanner to nonuniformities (column 7, lines 44-54).

Regarding claim 14, Lehman et al in view of Bromley further in view of Johnson teach all the limitations of claim 13. Further Lehman et al disclose wherein the partial calibration scan is done periodically (column 3, lines 10-14).

Regarding claim 17, Lehman et al disclose a method of calibrating a scanner, comprising the steps of:

Art Unit: 2626

- a) performing a calibration scan and storing the results as a reference scan (column 9, lines 9, lines 59-61; column 11, lines 19-24);
- b) performing at least one partial calibration scan (column 2, lines 66-68; column 3, lines 6-14);
- c) comparing the reference scan to the partial calibration scan (column 11, lines 20-25);
- d) re-performing the calibration scan when the difference between the partial calibration scan and the reference scan is at least equal to a predetermined amount (column 3, lines 10-14). However Lehman et al does not disclose calibration scan without moving the scan head in step b) and a PRNU calibration scan in step a) and d).

Bromley disclose calibration scan without moving the scan head (page 3, paragraph 58).

Johnson et al disclose a PRNU scan (column 7, lines 44-49).

Lehman et al, Johnson et al, and Bromley are combinable because they are in the similar problem area of image scanner calibration.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the PRNU calibration scan of Johnson et al and the calibration without scan head movement taught by Bromley with the scanning calibration method of Lehman et al to implement an efficient calibration method.

The motivation to combine the reference is clear because having the image scanner head stationary during calibration as taught by Bromley can save some time during the calibration phase of image scanning and Johnson teaches that PRNU scan is useful for calibrating the scanner to nonuniformities (column 7, lines 44-54).

Art Unit: 2626

Regarding claim 18, Lehman et al in view of Johnson et al further in view of Bromley teach all the limitations of claim 17. Further Lehman et al disclose wherein the partial calibration is done periodically (column 3, lines 10-14).

### ***Other Prior Art Cited***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Application Publication No. US 2004/0130739 A1 to Adam et al disclose profiling system for scanners and printers.

U.S. Patent Application Publication No. US 2002/0154325 A1 to Holub disclose color reproduction controller.

U.S. Patent No. 6654493 to Hilliard et al disclose image capture device calibration.

U.S. Patent No. 5982957 to DeCaro et al disclose scanner illumination.

U.S. Patent No. 5237172 to Lehman et al disclose color scanner calibration.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

Art Unit: 2626

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571) 272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.


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**Patent Examiner**

Beniyam Menberu

BM

07/06/2005

  
KIMBERLY WILLIAMS  
SUPERVISOR, PATENT EXAMINER